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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/743,623 | 02/02/2001 | Ian George Sayce | JYG143USA | 6117 |

270 7590 03/13/2003

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EXAMINER

COLAIANNI, MICHAEL

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1731

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/743,623

Applicant(s)

Sayce et al.

Examiner

Michael Colaianni

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 12, 2001
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 10-22 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 10-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Feb 02, 2002 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). <u>8</u> | 6) <input type="checkbox"/> Other: |

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THE CLAIMS SUBMITTED IN THE SECOND PRELIMINARY AMENDMENT FILED JANUARY 12, 2001, WERE INCORRECTLY NUMBERED AS CLAIMS 11-23. THERE WERE ONLY 9 ORIGINAL CLAIMS. CLAIMS 11-23 WERE RENUMBERED AS CLAIMS 10-22. THE CLAIM NUMBERS REFERRED TO IN THIS REJECTION ARE THE RENUMBERED CLAIMS 10-22.

Drawings

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 10-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 10-15 are directed to a method. These claims depend from claim 1, which is an apparatus (a furnace) claim. This is improper and deemed confusing.

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Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b)
the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 10-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kenji JP 1-009823.

Kenji teaches using a synthesis burner to apply silica particles to the top of a glass melt, the glass melt being housed within a refractory crucible having an orifice in the bottom for extruding the melt into a silica ingot (Figure 1, ref. no. 5, 15, 18).

Kenji also teaches removing the ingot from below (Fig. 1, ref. no. 18) and adding the silica soot to the crucible at a rate substantially similar to the rate at which the glass is withdrawn (Fig. 1, Fig. 5, Fig. 2, this inherently taught because the process is continuous which would inherently require a continuous supply of material for the operation to work).

Kenji also teaches that the burner is hot enough to melt the silica particles (page 4, lines 14-16, the burner "quickly melts" the silica which would inherently go through the sintering stage on its way to being melted).

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kenji JP 1-009823 in view of Atsushi JP 64-003027.

Kenji teaches applicant's claimed invention. See the 102(b) rejection for Kenji's teachings. However, Kenji does not teach moveable clamps are the moveable support means.

However, Atsushi teaches that it is known to use clamps to both support and draw down the ingot (Fig. 1, ref. no. 6, 7). Moreover, Kenji teaches using a drawing device (Fig. 1, ref. no. 17) which holds and pulls the glass to form the ingot. This pulling and holding mechanism is a

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known function of a clamp. Thus, Kenji's teaching in view of Atsushi's explicit teaching that using clamps for such a purpose would have been obvious.

It would have been prima facie obvious at the time the invention was made to combine Atsushi's use of moveable clamps with Kenji's furnace for making silica ingots for the reasons given above in the body of the rejection.

9. Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenji JP 1-009823 in view of Atsushi JP 003027 and Maxon WO 97/10183.

Kenji in view of Atsushi teach applicant's claimed invention. See the 103(a) rejection for Kenji in view of Atsushi's teachings. However, Kenji in view of Atsushi do not teach the subject matter of claims 19-22.

However, Maxon teaches that it is known to rotate an assembly to promote better homogeneity of the glass (claims 7-9). Moreover, Maxon teaches moving the refractory crucible to permit the burner to spread the glass over the melt (page 1, lines 30-37). Since movement of the burners is simply the inverse of moving the crucible it would have been obvious to move the burners given Maxon's teachings. Moreover, rotating the clamps with the crucible and the other components would have been obvious because failure to do so would cause the ingot to twist and produce undesirable optical properties on the glass.

It would have been prima facie obvious at the time the invention was made to combine Maxon's teachings with Kenji in view of Atsushi's furnace for the reasons given in the body of the rejection.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Colaianni whose telephone number is 703-305-5493. The examiner can normally be reached on Monday to Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin, can be reached on (703) 308-1164. The fax phone number for the organization where this application or proceeding is assigned is 703-305-7115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

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March 12, 2003

A handwritten signature in black ink, appearing to read "Michael Colaianni". The signature is fluid and cursive, with the first name "Michael" and last name "Colaianni" clearly distinguishable.

**MICHAEL COLAIANNI
PRIMARY EXAMINER**